ANNUAL COMPLIANCE REPORT ON PUBLIC WATER SYSTEM VIOLATIONS

January 1, 1998 - December 31, 1998

New Hampshire Department of Environmental Services
Water Division - Water Supply Engineering Bureau
(603) 271-2513

July 1, 1999

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Prepared by:
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1998 NEW HAMPSHIRE ANNUAL COMPLIANCE REPORT

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INTRODUCTION

The 1996 Amendments to the Safe Drinking Water Act require each state to prepare an annual compliance report summarizing violations incurred by Public Water Systems. The Annual Compliance Report is submitted to the Environmental Protection Agency (EPA) and is also made available to the public. The purpose of this report is to summarize the number and types of violations that public water systems receive as a result of failing to meet various requirements of the Safe Drinking Water Act.

New Hampshire's 1998 Annual Compliance Report contains an overview of New Hampshire's Drinking Water Program and a summary of regulated systems. Federal violations and their significance to various regulated monitoring programs and contaminants are discussed. Tables and charts reflect the compliance of New Hampshire's public water systems.

THE DRINKING WATER PROGRAM: AN OVERVIEW

The EPA established the Public Water System Supervision (PWSS) Program under the authority of the 1974 Safe Drinking Water Act (SDWA). Under the SDWA and the 1986 Amendments, EPA sets national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCLs). For some regulations, EPA establishes treatment techniques in lieu of an MCL to control unacceptable levels of contaminants in water. The Agency also regulates how often public water systems (PWSs) monitor their water for contaminants and report the monitoring results to the States or EPA. Generally, the larger the population served by a water system, the more frequent the monitoring and reporting (M/R) requirements. In addition, EPA requires PWSs to monitor for unregulated contaminants to provide data for future regulatory development. Finally, EPA requires PWSs to notify the public when they have violated these regulations. The 1996 Amendments to the SDWA require public notification to include a clear and understandable explanation of the nature of the violation, its potential adverse health effects, steps that the PWS is undertaking to correct the violation and the possibility of alternative water supplies during the violation. The SDWA applies to the 50 States, the District of Columbia, Indian Lands, Puerto Rico, the Virgin Islands, American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and the Republic of Palau.

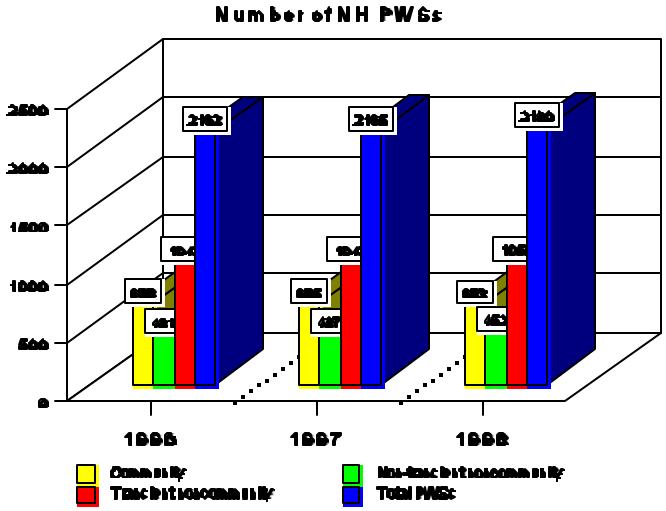
The SDWA allows States and Territories to seek EPA approval to administer their own PWSS Programs. The authority to run a PWSS Program is called primacy. To receive primacy, States must meet certain requirements laid out in the SDWA and the regulations, including the adoption of drinking water regulations that are at least as stringent as the Federal regulations and a demonstration that they can enforce the program requirements. *New Hampshire is a primacy state.*

NH PUBLIC WATER SYSTEM PROFILE

New Hampshire defines a public water system (PWS) as a system that provides water via piping or other constructed conveyances for human consumption to at least 15 service connections or *designed to serve an average of at least 25 people* for at least 60 days each year. In accordance with NH rule, Env-Ws 301.02, the population served by a community PWS is determined by a household equivalent of 2.5 people, or 2.5 people per service connection.

There are three types of PWSs. PWSs can be community "CWS" (such as municipalities), non-transient/non-community "NTNC" or "NC" (such as schools or factories), or transient/non-community "NC" or "N" (such as restaurants and campgrounds) systems. For this report, when the abbreviation “PWS” is used it means systems of all types unless specified in greater detail.

New Hampshire monitors approximately 2,190 PWSs. The following chart reflects an average system count over the last three years.



1998 NEW HAMPSHIRE ANNUAL COMPLIANCE REPORT

In 1998 New Hampshire monitored 2,190 PWSs. The PWS inventory was made up of 683 community "C" systems, which served a population of approximately 733,500, 452 non-transient/ non-community "NTNC" systems and 1,055 transient/ non-community "NC" systems. Most of New Hampshire's community PWSs are small, serving a population of less than 1,000.

Community Systems by Population Ranges

Population Categories	Population Ranges	Number of Community Systems	Total Population Served
Large Systems	> 50,000	2	208,000
Medium Systems	10,001- 50,000	14	261,331
	3,301- 10,000	18	102,902
Small Systems	1,001- 3,300	51	96,370
	501- 1,000	36	25,458
	101- 500	228	48,051
	25- 100	323	19,077
	< 25	11	192

Based on data from June 1999.

Other NH Public Water System statistics as of June 17, 1999:

COMMUNITY SYSTEMS	# Systems	Population Served
Groundwater Sources (only)	631	277,831
Surface Water Sources (only)	24	288,713
Combined Sources (Surface and Ground)	14	169,340
Purchased Sources	14	26,579
Total Populations Served by Community PWSs	683	762,463

- NH has 683 community public water systems which serve about 762,463 people.
- Given a total state population of 1,173,000 (OSP 1997 estimate), about 65% of the population is served by community systems.
- About 277,831 people, or about 23% of the state population, are served by community systems which draw only from groundwater.
- About 479,000 people, or about 41% of the population, are served by community systems which draw primarily from surface water.
- About 410,500 people, or about 35% of the population, use private wells or other non-public water systems.

All PWSs are required to comply with drinking water standards, water quality monitoring requirements, public notification requirements, and operational and construction standards. DES's Water Supply Engineering Bureau (WSEB) tracks and monitors compliance with regulations, enforces the regulations, administers PWS Operation Permits, provides financial assistance through State Revolving Fund (SRF) program, conducts sanitary surveys, provides technical assistance, and trains and certifies water system operators. WSEB has also implemented a source water protection program utilizing GIS (geographic information system) data.

ANNUAL STATE PWS REPORT

New Hampshire submits data to the Safe Drinking Water Information System (SDWIS/FED) on a quarterly basis. Data includes PWS inventory statistics, the incidence of Maximum Contaminant Level, Major Monitoring, and Treatment Technique violations, and the enforcement actions taken against violators. The annual compliance report that States are required to submit to EPA will provide a total annual representation of the numbers of violations for each of the four categories listed in section 1414(c)(3) of the Safe Drinking Water Act reauthorization. These four categories are: MCLs, treatment techniques, monitoring and significant monitoring violations and variances and exemptions. EPA stores this data in an automated database called the Safe Drinking Water Information System (SDWIS).

- **Maximum Contaminant Level (MCLs)**

Under the Safe Drinking Water Act (SDWA), EPA sets national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCLs). This report includes MCL violations for microbiological contaminants under the Total Coliform Rule and MCL violations for regulated chemical contaminants.

- **Treatment Techniques**
  For some regulations, the EPA establishes treatment techniques (TTs) in lieu of an MCL to control unacceptable levels of certain contaminants. For example, treatment techniques have been established for viruses, bacteria, and turbidity under the Surface Water Treatment Rule (SWTR). This report includes SWTR treatment technique violations for 1998. *No New Hampshire PWSs received treatment technique violations for the Lead and Copper Rule in 1998.*

- **Monitoring Violations**
  A PWS is required to monitor and verify that the levels of a contaminant, if present in the water, does not exceed the MCL. Generally the larger the population served, the more samples the PWS is required to take. If a PWS fails to have its water tested as required, then a monitoring violation occurs.

- **Significant Monitoring Violations**
  For this report, significant monitoring violations are defined as any major monitoring violation that has occurred during the specified report interval. A major monitoring violation (except for the Surface Water Treatment Rule) occurs when no samples were taken or no results are reported during a compliance period. A major Surface Water Treatment Rule M/R violation occurs when fewer than 90% of the required samples are taken or no results are reported during a reporting interval. A minor violation occurs when at least 90%, but not all, of the required numbers of samples are taken.

- **Variances and Exemptions**
  Variances and exemptions to specific requirements under the Safe Drinking Water Act Amendments of 1996 may be granted under certain circumstances. If, due to the characteristics of the raw water sources reasonably available, a PWS cannot meet the MCL, a primacy State can grant the PWS a variance from the applicable primary drinking water regulation, with the condition that the system install the best available technology, treatment techniques, or other means which the Administrator finds are available (taking cost into account). *Currently no New Hampshire PWS has been issued a variance or an*

exemption.

COMPLIANCE SUMMARY

A summary of public water system violations for 1998 is included in Appendix A. The information includes the number of total violations and total number of systems in violation of a particular regulated contaminant. The regulatory contaminant categories are:

- **The Total Coliform Rule (TCR) or Bacteria Monitoring**
- **Chemical Monitoring (Phase I, II, IIB, and V Rules and Radionuclides)**
- **The Lead and Copper Rule**
- **Surface Water Treatment Rule**

Violations from these programs and any resulting enforcement actions are the basis of the Annual Compliance Reports and can be found in Appendices B and C. A description of these programs and the pertinent violations follow:

The Total Coliform Rule (TCR) or Bacteria Monitoring

The Total Coliform Rule (TCR), promulgated in 1989, establishes legal limits for total coliform bacteria levels in drinking water. In addition, the TCR determines the type and frequency of bacteria testing that must be conducted by each public water system.

Coliform bacteria represent a broad class of bacteria which live in the intestinal tract of humans and many animals. Coliforms are considered to be an "indicator" organism because their presence suggests that other disease causing organisms may be present. Disease symptoms include diarrhea, cramps, nausea, vomiting, and associated headaches and fatigue. Although total coliform bacteria are generally not harmful themselves, infants, the elderly, and immuno-compromised people may be at increased risk. The presence of coliform bacteria in drinking water indicates that the source has become contaminated, the integrity of the distribution system has been compromised, or the treatment/disinfection equipment - if any - is not working properly.

If coliform bacteria are found in drinking water, the water system may need to take any number of

corrective actions including flushing the system, repairing/upgrading system components, disinfecting the system, repairing treatment equipment, and enacting source protection measures.

The routine bacteria sampling regimen is determined by the classification of the system, the population served, and the physical configuration of the system. Typically, a new community system samples monthly, and a new non-community system samples twice a year. A community system that has no monitoring/reporting violations or bacteria "hits" in a year, and also has no outstanding significant deficiencies identified in its last sanitary survey is eligible for a reduction from monthly to quarterly sampling. A non-community system that experiences a bacteria "hit" will have its sampling schedule increased from twice a year to quarterly.

States are to report the following four categories of violations:

Acute MCL violation: Indicates that fecal coliform or E. coli, potentially harmful bacteria, were found to be *"Present"* in the system's scheduled water sample, thereby violating the rule (SDWIS Violation Code 21.)

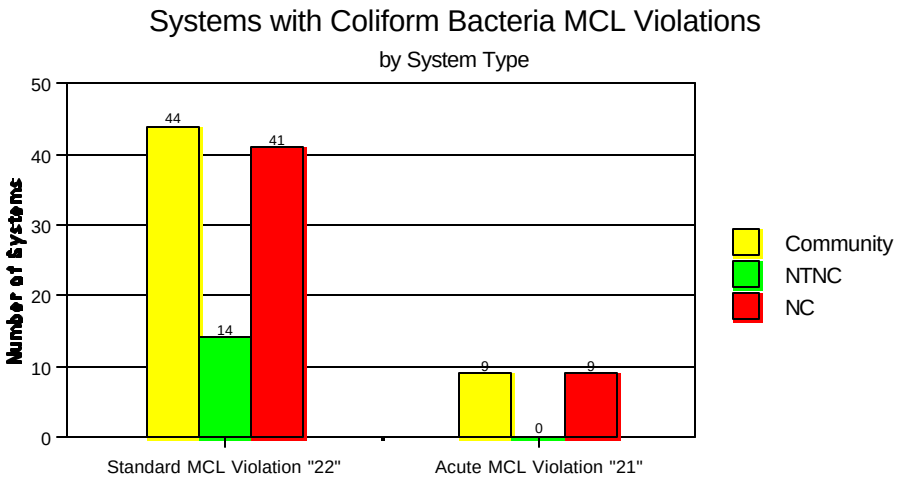
Non-acute MCL violation: Indicates that total coliform bacteria were *"Present"* in the system's scheduled samples at a frequency or at a level that violates the rule. These are indicator bacteria and are not in themselves harmful.(SDWIS Violation Code 22.)

Major routine and follow-up monitoring: Indicates that a system did not submit any routine water samples during its scheduled monitoring period (SDWIS Violation Code 23) or did not submit any required repeat samples (SDWIS Violation Code 25.)

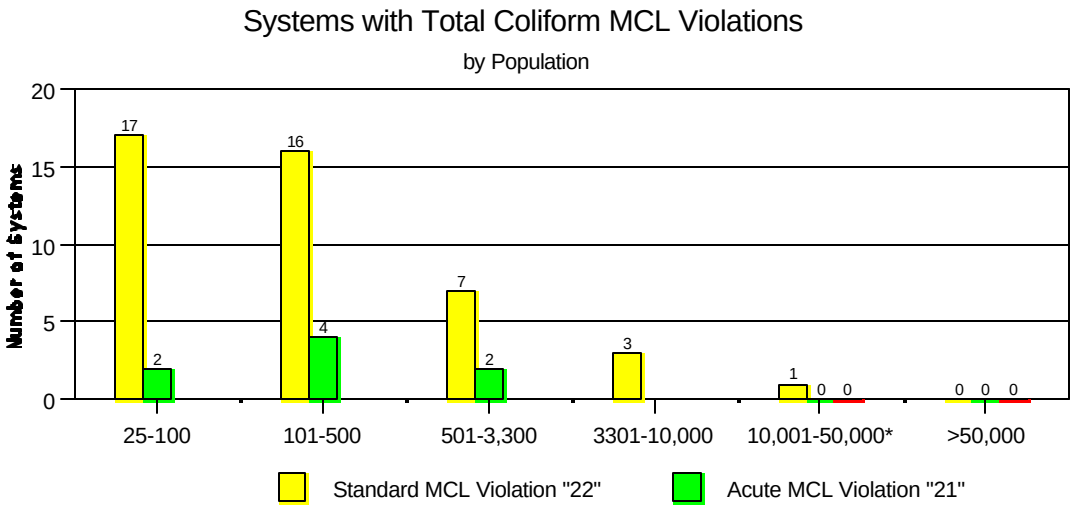
Under the TCR, whenever a water sample tests positive for total coliform bacteria, the sample must undergo further analysis to determine if fecal coliform or Escherichia coli ("E. coli") are present. Fecal coliform and E. coli bacteria are coliforms directly associated with fresh feces. Discovery of fecal coliform or E. coli will result in the immediate issuance of a "Boil Order" on the water system. The Boil Order will not be lifted until the system has been inspected to determine the source of the contamination, the necessary corrections have been made, and sufficient additional sampling has been conducted to indicate that the contamination has been eliminated. A water system will receive an "Acute MCL Violation" (SDWIS Violation Code 21) if a routine total coliform positive sample is followed by a fecal/E. coli positive repeat sample, or if a fecal/E. coli routine sample is followed by a total coliform positive repeat sample. Due to the direct threat to public health posed by the presence of fecal or E. coli bacteria, public notification is required as soon as possible, but no more than 72 hours of the discovery of the bacteria.

Systems that submit less than 40 samples in a sampling month are considered to be in compliance with the TCR if no more than one sample submitted during the month is positive for total coliform. Systems submitting 40 or more samples are in compliance if no more than 5% of all samples are positive. Systems that exceed the above limits receive a "Standard MCL Violation" (SDWIS Violation Code 22) and are required to perform public notification. A total coliform positive sample requires the water system to submit repeat samples within 24 hours.

During 1998, 5% (111) of all NH PWSs monitoring for TCR (2190) received 135 standard or acute bacteria MCL violations. Of the systems with such violations, 85% served 500 or fewer people. *The standard MCL violation incurred by the largest of these systems, Derry Water Department, occurred in an isolated portion of the system which until 1996 was a small community water system. The population at risk was less than 150.** As a general rule, a system must demonstrate at least 6 months of clean bacteria sampling results before WSEB will list the system as having returned to compliance.



The TCR also provides violations for failure to submit the appropriate number of samples for bacterial analysis. Submitting none of the required routine samples results in the issuance of a "Major Monitoring/Reporting Violation" (SDWIS Violation Code 23); the submission of some, but not all, of the required routine samples results in a "Minor Monitoring/Reporting Violation" (SDWIS Violation Code 24).



Submitting none of the required repeat samples results in the issuance of a "Major Repeat Monitoring/Reporting Violation" (SDWIS Violation Code 25); the submission of some, but not all, of the required repeat samples results in a "Minor Repeat Monitoring/Reporting Violation" (SDWIS Violation Code 26).

During 1998, 7.3% (149) of all NH PWSs (2190) received 199 Major Routine or Major Repeat Monitoring/Reporting Violations. Of the systems receiving such violations, 92% served 500 or less people. Approximately three quarters of systems 72% (107) that received Major Monitoring/Reporting Violations have returned to compliance.

Chemical Monitoring

Water quality testing for chemical contaminants is much less frequent than for microbiological contaminants. Chronic exposure over a long period of time is usually necessary to experience a risk to health. Chemical monitoring includes: volatile organic compounds (also known as VOCs, which are solvents & hydrocarbons); synthetic organic compounds (also known as SOCs, which are pesticides and plastics); inorganic contaminants (also known as IOCs, which are nitrate, nitrite and metals); and radionuclides (RADs). Community and non-transient/ non-community systems, with the exception of systems that solely use purchased water, are required to sample for all of the above parameters under New Hampshire rule. Transient/non-community systems are required to sample for nitrates once a year and nitrites once every three years.

Organic Contaminants: These are carbon-based compounds, such as industrial solvents and pesticides which include VOCs and SOCs. These contaminants generally get into water through runoff from cropland, releases from underground storage tanks, discharges from factories, or accidental spills. EPA has set legal limits on 54 organic contaminants that are to be reported [40 CFR 141.61].

Inorganic Contaminants: These are non-carbon-based compounds, such as metals, nitrates, and asbestos which generally are naturally-occurring in some water, but can also get into water through farming, chemical manufacturing, and other human activities. EPA has established MCLs for 15 inorganic contaminants [40 CFR 141.62].

Radionuclides: These are radioactive particles which can occur naturally in water or result from human activity. EPA has set legal limits on four types of radionuclides: radium-226, radium-228, gross alpha, and beta particle/photon radioactivity [40 CFR 141]. Violations for these contaminants are

reported using the following three categories:

Gross alpha: SDWIS Contaminant Code 4000 for alpha radiation above MCL of 15 picocuries/liter. Gross alpha includes radium-226 but excludes radon and uranium.

Combined radium-226 and radium-228: SDWIS Contaminant Code 4010 for combined radiation from these two isotopes above MCL of 5 pCi/L.

Gross beta: SDWIS Contaminant Code 4101 for beta particle and photon radioactivity from man-made radionuclides above 4 millirem/year. This applies to systems serving populations greater than 100,000. *There is only one New Hampshire system that meets the criteria.*

Two types of Chemical monitoring violations are reported:

***Maximum Contaminant Level (MCL) Violation*:** MCL violations occur when the sample exceeds the MCL. (SDWIS Violation Code 02)

Monitoring Violations: Failure to sample. (SDWIS Violation Code 03)

In 1998, 4 PWSs incurred 7 MCL violations for regulated chemical contaminants. None of these systems have yet returned to compliance.

The NTNC system (one of 773 systems required to sample for VOCs in 1998) that received the VOC violation is part of a large area impacted by trichloroethylene. After having reviewed options, which included connecting to another water system, the system owner opted to install treatment. Plans have been submitted to WSEB and treatment is expected to be installed in July 1999.

Three systems, two community and one NTNC, incurred six MCL violations for arsenic. A total of 464 systems were required to sample for IOCs in 1998. Two of the systems are in the process of installing treatment and one is drilling a new well. The systems will be returned to compliance once corrections are made and six months of samples with acceptable levels are submitted.

NH tracks chemical data by six contaminant "sample" groups. These contaminant groups are used

unless an individual IOC exceeds half the MCL, or an individual VOC or SOC is detected. When one of these situations occurs, the individual contaminant is tracked. The contaminant groups are as follows:

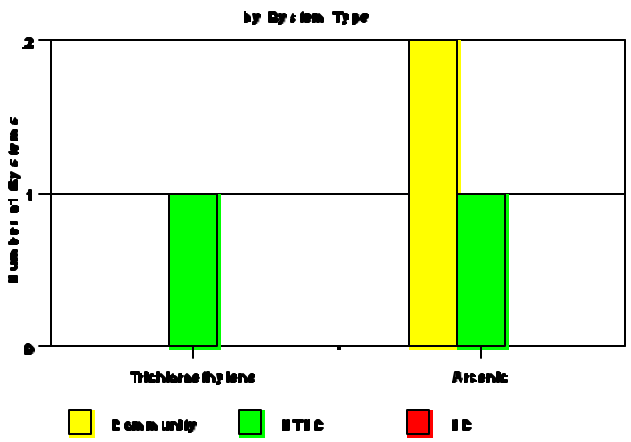
NH Chemical Sample Groups		NH Sampling Rules
IOCs	contains 11 regulated contaminants	All community and non-transient/non-community systems must sample every three years.
Nitrates		All systems must sample annually.
Nitrites		All systems must sample every three years.
VOCs	contains 21 regulated contaminants	All new community and non-transient/non-community systems sample quarterly the first year, annually thereafter; or every three or six years with a waiver.
SOCs	contains 25 regulated contaminants NH has received waivers for 5 of the 30 regulated SOCs based on state pesticide use records. See Appendix A.	New community and non-transient/non-community systems sample annually, every three or six years with a waiver.
RADs	contains 2 regulated contaminants There is only one system in NH with a population greater than 100,000 and thus required to sample for man-made radionuclides.	All new community ***and non-transient/non-community*** systems sample quarterly, every three years thereafter. State rule requires ***non-transient/non-community*** systems to sample for RADs.

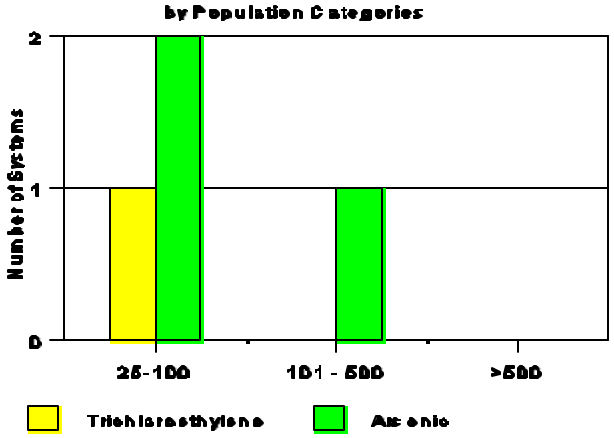
Group Contaminant Codes	**VOCs**	**SOCs**	**RADs**	**IOCs**	**Nitrates**	**Nitrites**
Total Systems with M/R Violations	30	9	7	10/ 5	61	8
Total NH Groups Violations: 141	**Total Individual Chemical Contaminants: 1,140**					

The second number under IOCs reflects systems with just arsenic and fluoride violations.

WSEB issued 141 monitoring violation notices for 1,140 regulated chemical contaminants to 84 systems. As of June 1999, 55 systems have returned to compliance.

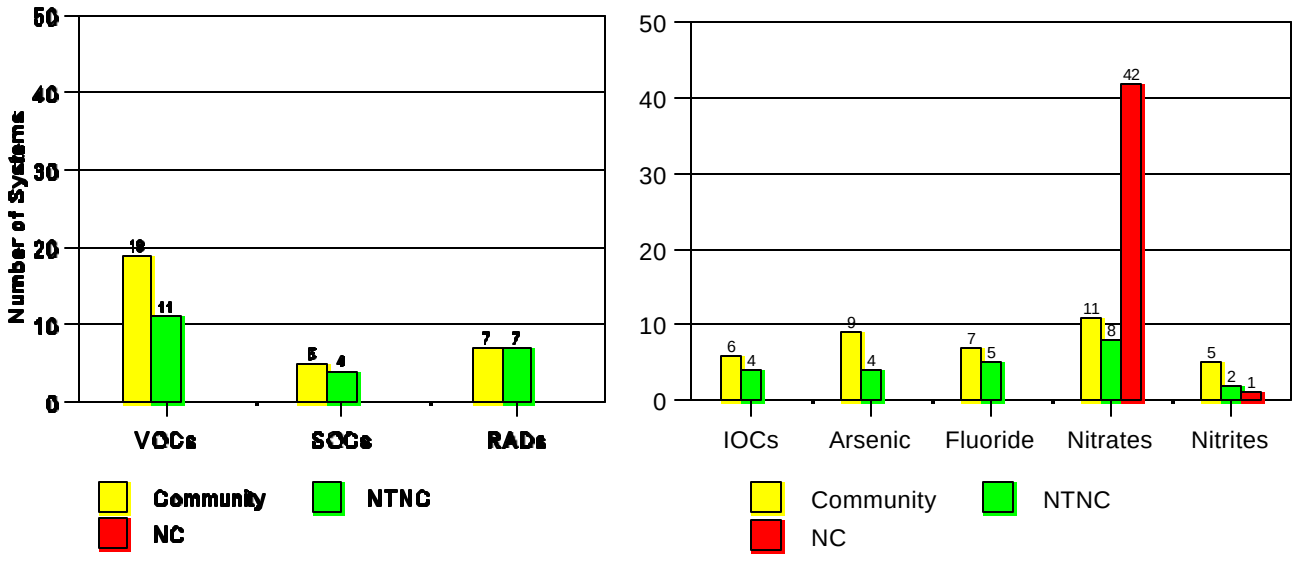
Systems with Chemical MCL Violations





Systems with Chemical Monitoring/Reporting Violations (03)

by System Type


Number of Systems
50
40
30
20
10
0
19
11
5
4
7
7
VOCs
SOCs
RADs
Community
NTNC
NC
6
4
9
4
7
5
11
8
42
5
2
1
IOCs
Arsenic
Fluoride
Nitrates
Nitrites
Community
NTNC
NC

Lead and Copper

This rule established national limits on lead and copper in drinking water [40 CFR 141.80-91]. Corrosion of lead and copper pipes and plumbing fixtures pose various health risks when the associated water is ingested, and can enter drinking water from household pipes and plumbing fixtures.

Lead contamination is a major concern today, especially when small children are involved. Sampling under this rule reflects this concern. The number of samples required is based on the system's population. Systems that do not exceed action levels, 0.015 mg/l for lead and 1.3 mg/l for copper, will sample each site twice the first year, once a year for the next three years, and then once every three years. Systems that exceed action levels need to do corrosion control studies, possibly provide treatment, and do additional sampling.

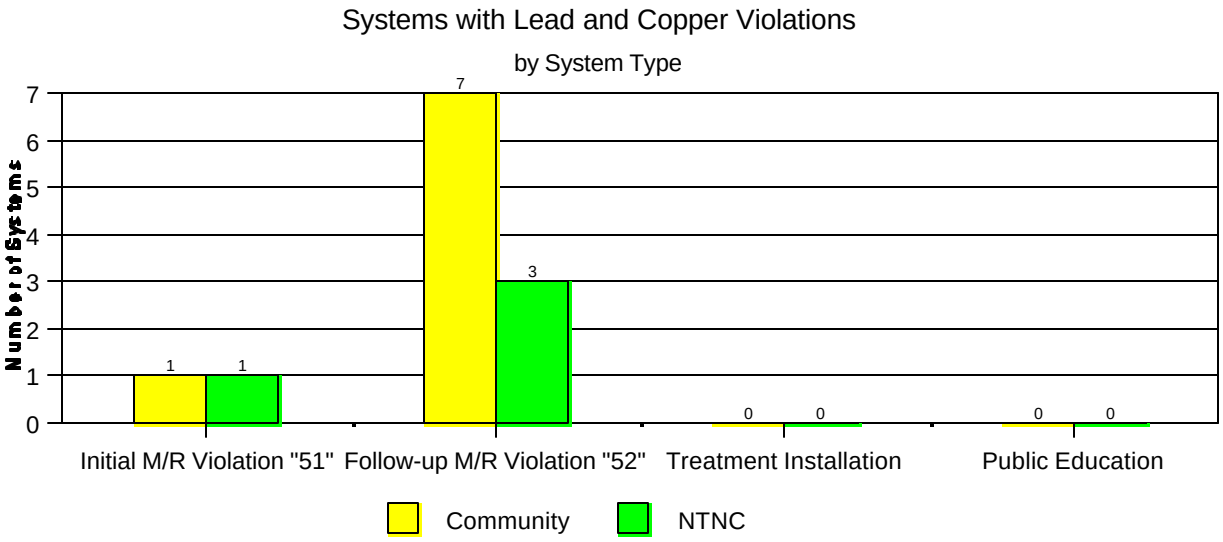
Community and non-transient/non-community systems are required to sample under this rule. Transient/non-community systems are exempt from the Lead and Copper Rule. States report violations of the Lead and Copper Rule in the following categories:

Initial lead and copper tap M/R: Indicates that a system did not meet initial lead and copper testing requirements or failed to report the results of those tests to the state. (SDWIS Violation Code 51) *According to a federal SNC report New Hampshire has 2 initial lead and copper tap M/R violations*.

Follow-up or routine lead and copper tap M/R: Indicates that a system did not meet follow-up or routine lead and copper tap testing requirements or failed to report the results. (SDWIS Violation Code 52)

***Treatment installation*:** SDWIS Violation Codes 58 and 62 indicate a failure to install an optimal corrosion control treatment system (58) or a source water treatment system (62) which would reduce lead and copper levels in water at the tap. (One number is to be reported for the sum of violations in these two categories.) *No New Hampshire PWS incurred a treatment installation violation in 1998*.

***Public education violation*:** Indicates that a system did not provide required public education about reducing or avoiding lead intake from water. (SDWIS Violation Code 65) *No New Hampshire PWS incurred a public education violation* in 1998.



S

urface Water Treatment Rule

The Surface Water Treatment Rule (SWTR) establishes standards for the treatment of surface water systems and groundwater under the direct influence of surface water. Public water systems subject to the SWTR are required to provide filtration and disinfection to achieve minimum 3 log inactivation of Giardia lamblia and 4 log inactivation of viruses. A system that has been required to filter and fails to install filtration would receive a treatment technique violation. Compliance is not achieved until filtration is installed. Monthly operating reports submitted to the DES documents monitoring for turbidity and free chlorine residual at the filtration plant, and monthly monitoring to confirm positive chlorine residual in the distribution system. Turbidity standards must be met in at least 95% of measurements taken each month, and chlorine residual in water entering the distribution system must not be less than 0.2 mg/l for more than four hours. Failure to meet these or other SWTR standards results in a treatment technique violation. A major monitoring violation occurs when fewer than 90% of the required samples are taken or when no results are reported during a reporting interval. A minor violation occurs when at least 90%, but not all, of the required numbers of samples are taken.

New Hampshire has 38 water systems which draw from surface water, 14 of which are combined surface/groundwater systems. Of the 38, four systems which serve a total population of 14,000, have achieved a waiver of filtration and submit monthly operating reports. Surface water serves a population of 479,000, which is about 41% of the state's population.

The Surface Water Treatment Rule establishes criteria under which water systems supplied by surface water sources or ground water sources under the direct influence of surface water, must filter and disinfect their water [40 CFR 141, Subpart H]. Systems fall within two categories:

Filtered Systems: Water systems that have installed filtration treatment.

Unfiltered Systems: Water systems that have achieved a waiver from the requirement to filter.

Violations of the Surface Water Treatment Rule are to be reported for the following four categories:

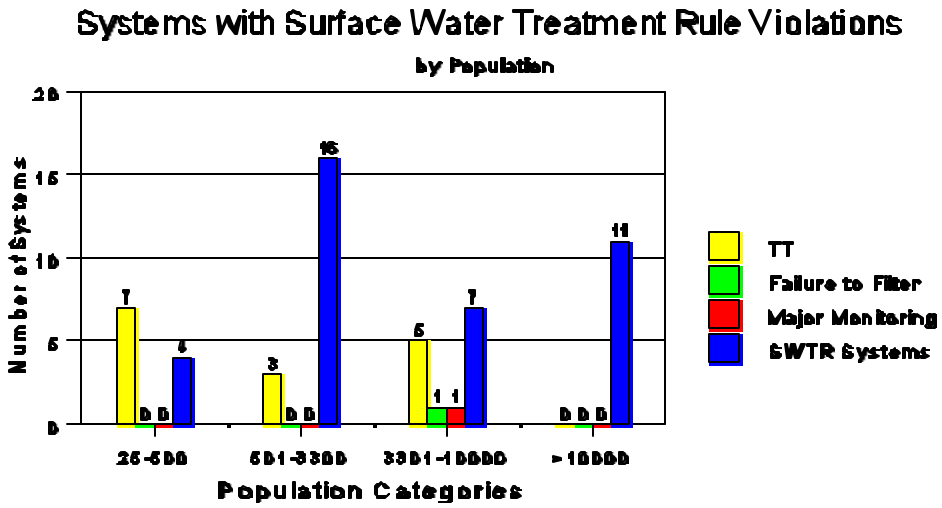
Monitoring, routine/repeat (for filtered systems): Indicates a system's failure to carry out required tests, or to report the results of those tests (SDWIS Violation Code 36.)

Monitoring, routine/repeat (for unfiltered systems): Indicates a system's failure to carry out required water tests, or to report the results of those tests. (SDWIS Violation Code 31.)

Treatment techniques (for filtered systems): Shows a system's failure to properly treat its water. (SDWIS Violation Code 41.)

Failure to filter (for unfiltered systems): Shows a system's failure to properly treat its water. Data for this violation code is supplied to the States by EPA (SDWIS Violation Code 42.) This code applies to previously unfiltered systems. All have since come into compliance. The compliance status of these systems follows:

As of 1992, thirty-two of New Hampshire's surface water systems were required to install filtration or meet the avoidance criteria of the SWTR. All of these systems were in compliance by July 15, 1998. Sunapee Water Works and Tilton-Northfield Aqueduct, which were the last two surface water systems to complete construction, each received a treatment technique violation because both exceeded the completion deadline of December 31, 1997. An additional four water systems also received treatment technique violations for 1998. One system, Troy Water Works, which is an unfiltered system, received a major monitoring violation in 1998.



SURFACE WATER VIOLATIONS
Prior Failure to Filter SDWIS Violation Code 42
Treatment Technique Violations

PWS ID	SYSTEM NAME	SYSTEM TYPE	TOWN	COMPLIANCE ACHIEVED	STATUS
NH0101010	Ashland Water Department	C	Ashland	YES 4/01/1997	Converted to groundwater 4/1997
NH0251010	Penacook Boscawen Water Precinct	C	Boscawen	YES 2/22/1996	Converted to groundwater 2/1996
NH0861010	Freedom Water Precinct	C	Freedom	YES 6/29/1996	Converted to groundwater 6/1996
NH0911010	Goffstown Village Precinct	C	Goffstown	YES 6/29/1996	Plant completed 6/1996
NH1141010	Hillsborough Water Works	C	Hillsborough	YES 6/01/1996	Plant completed 6/1996
NH1291010	Lancaster Water Department	C	Lancaster	YES 6/29/1996	Plant completed 6/1996
NH1721010	New London-Springfield Water	C	New London	YES 5/01/1996	Converted to groundwater 5/1996
NH1841010	Ossipee Water Department	C	Ossipee	YES 6/29/1996	Converted to groundwater 6/1996
NH1911010	Pittsfield Aqueduct Co	C	Pittsfield	YES 10/29/1997	Plant completed 10/1997
NH2221010	North Stratford Water Dept	C	Stratford	YES 3/06/1996	Converted to groundwater 3/1996
NH2271010	Sunapee Water Works	C	Sunapee	YES 7/15/1998	Plant completed 7/1998
NH2271020	Georges Mills Water Works	C	Sunapee	YES 12/15/1997	Converted to groundwater 12/1997

NH2351010	Tilton-Northfield Aqueduct	C	Tilton	YES 01/05/1998	Converted to groundwater 1/1998
NH2561010	Wolfeboro Water and Sewer	C	Wolfeboro	YES 10/01/1996	Plant completed 10/1996

WSEB COMPLIANCE ASSISTANCE AND ENFORCEMENT ACTIVITIES

The WSEB uses a variety of means to assist PWSs to maintain compliance with applicable SDWA and state regulations. The compliance assistance activities include: mailing sampling schedules to key system representatives of each PWS, mailing reminder postcards or making phone calls as the end of a monitoring period approaches, offering regular operator training courses and additional special topic seminars, mailing the Bureau's newsletter to approximately 4,000 stakeholders, offering Fact Sheets on a wide variety of subjects, and providing technical assistance over the phone and during sanitary surveys.

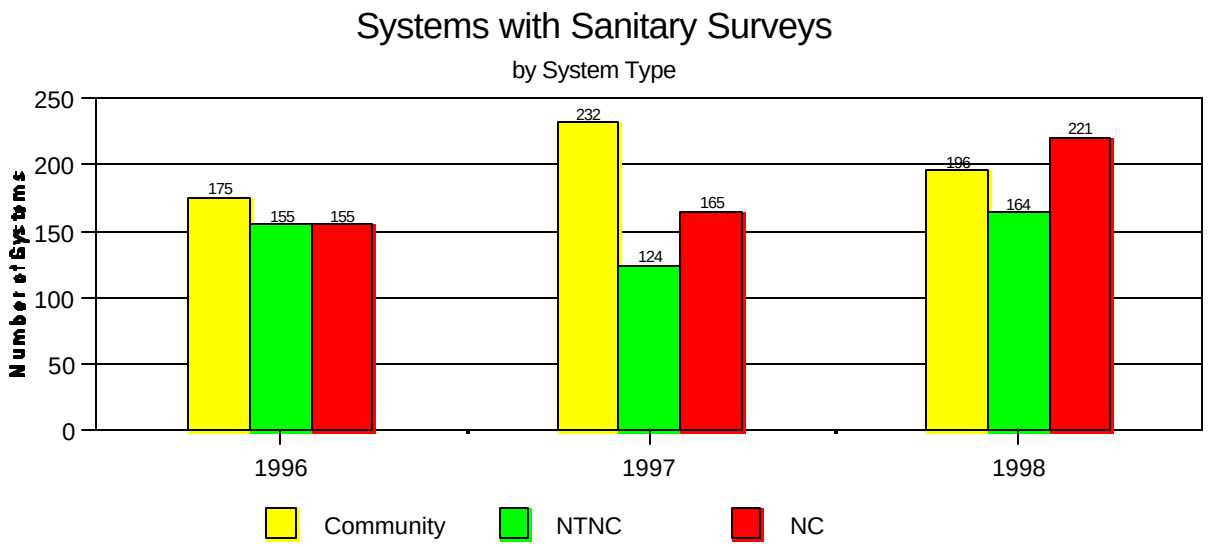
Should a system fail to monitor according to schedule, exceed an MCL, violate a treatment technique, fail to perform public notice, or fail to correct a significant deficiency identified in a sanitary survey, the system is issued a letter of violation. In the majority of cases, a letter of violation is likely to cause system representatives to bring their water system back into compliance. In a small number of cases, additional enforcement action is required. If the violation is relatively minor, a Letter of Deficiency (LoD) is issued which requests certain actions to be completed within specified time periods. LoDs seek voluntary compliance from the system owners and are not enforceable in and of themselves. More serious violations or repetitive violations result in the issuance of an Administrative Order and/or the imposition of Administrative Fines. On rare occasions, it has been necessary to refer a water system to the NH Attorney General's office for civil and/or criminal penalties.

The New Hampshire Drinking Water Program is very comprehensive. The various sections work closely with one another and all utilize the same database. Outreach, initiated by the Enforcement and Monitoring Section, as well as sanitary surveys and the certified operator program have enhanced compliance in New Hampshire.

Sanitary Surveys

Sanitary surveys, or water system inspections, are conducted by DES staff every three years for community and NTNC systems and every five years for NC systems. The water systems are inspected

for compliance with drinking water program regulations. Any necessary water quality samples can also be taken during the survey. Surveys are one of the best ways of insuring proper protection of drinking water supplies and the proper operation of public water systems. In addition, periodic visits to the water systems allow the DES staff to update its data and gather other information on the water systems that is required under federal and state regulations. All new systems are surveyed as they come on line or when they are discovered.



New Hampshire Drinking Water Operator Certification Program

The State of New Hampshire requires that all community and non-transient/non-community public water systems have a certified operator. These operators oversee many system operations to ensure a safe and adequate water supply to the system's customers. There are two categories of certification, treatment and distribution, divided into five levels of complexity. Each level has its own strict experience and education requirements and applicants must pass a certification exam with a grade of at least 70% to become certified. New Hampshire currently has 1015 active certified operators.

CONCLUSIONS

In general, New Hampshire tends to have a higher number of MCL occurrences than other states. Unlike most other states and territories, New Hampshire has an administrative rule, Env-Ws 322.11, which requires the owner of a PWS to enter into a written agreement with a certified laboratory to perform duties related to reporting drinking water quality analyses. The agreement must contain the provision that the lab report all analytical results directly to WSEB, the primacy agency. In most states and territories, the PWS submits water quality results from a certified lab to the primacy agency. The primacy agency and federal government may never know of an MCL occurrence in these situations since the PWS may opt to resample or incur a monitoring violation rather than receive a MCL violation. NH PWSs do not have this option. The intent of this law was to protect consumer health from risks that could be caused by fraudulent data/sampling. The high number of "Acute MCL Violations" (bacteria) may be attributed to the significant amount of precipitation that occurred in the spring and early summer of 1998.

The majority of PWS violations that occurred in New Hampshire in 1998 were due to failure to monitor. While these violations are of concern, they are generally considered secondary to violations that affect public health, such as violations occurring from exceeding a maximum contamination level.

The majority of violations occurred at PWSs serving populations less than 500. Most of the systems with monitoring violations have previously monitored, and have not detected any regulated contaminants at levels affecting public health.

RETURN TO COMPLIANCE

When a system addresses its violations, it returns to compliance (RTC) or has achieved compliance. A New Hampshire system in violation of monitoring requirements must submit acceptable samples as scheduled for at least 6 months before the system will be considered to have returned to compliance. Systems incurring confirmed MCL violations must give public notice and resolve the problem before achieving compliance. For this reason, a significant number of New Hampshire systems have yet to come back into compliance. A year round system that receives a monitoring violation in January, cannot attain compliance until July at the earliest. A seasonal system may easily take over a year to return to compliance.

REPORT AVAILABILITY AND CONTACT INFORMATION

The New Hampshire 1998 Compliance Report may be obtained by contacting the New Hampshire Department of Environmental Services, Water Division, Water Supply Engineering Bureau at 6 Hazen Drive- PO Box 95, Concord, NH 03301. A summary report is available at the DES Website at http://www.des.nh.state.us/wseb. A compilation of violations by calender year is also available on the website. Violations may be accessed on a town by town basis. For further information concerning this report, please contact Laurie Cullerot, DES at (603) 271-2954 or l_cullerot@des.state.nh.us.

APPENDIX A

VIOLATIONS TABLE

(with SDWIS Codes)

Appendix A
Violations Table
(with SDWIS Codes)

State:	New Hampshire
Reporting Interval:	01-01-1998 to 12-31-1998

SDWIS Codes		MCL (mg/ℝ)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
	Organic Contaminants							
2981	1,1,1-Trichloroethane	0.2	0	0			34	30
2977	1,1-Dichloroethylene	0.007	0	0			34	30
2985	1,1,2-Trichloroethane	.005	0	0			34	30
2378	1,2,4-Trichlorobenzene	.07	0	0			34	30
2931	1,2-Dibromo-3-chloropropane (DBCP)	0.0002	0	0			9	9
2980	1,2-Dichloroethane	0.005	0	0			34	30
2983	1,2-Dichloropropane	0.005	0	0			34	30
2063	2,3,7,8-TCDD (Dioxin)	$3x10^{-8}$	N/A	N/A			N/A	N/A
2110	2,4,5-TP	0.05	0	0			9	9
2105	2,4-D	0.07	0	0			9	9

State:	New Hampshire
Reporting Interval:	01-01-1998 to 12-31-1998

SDWIS Codes		MCL (mg/ℝ)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
2265	Acrylamide				0	0		
2051	Alachlor	0.002	0	0			9	9
2050	Atrazine	0.003	0	0			9	9
2990	Benzene	0.005	0	0			34	30
2306	Benzo[a]pyrene	0.0002	0	0			9	9
2046	Carbofuran	0.04	0	0			9	9
2982	Carbon tetrachloride	0.005	0	0			34	30
2959	Chlordane	0.002	0	0			9	9
2380	cis-1,2-Dichloroethylene	0.07	0	0			34	30
2031	Dalapon	0.2	NA	NA			NA	NA
2035	Di(2-ethylhexyl)adipate	0.4	0	0			9	9
2039	Di(2-ethylhexyl)phthalate	0.006	0	0			9	9
2964	Dichloromethane	0.005	0	0			34	30
2041	Dinoseb	0.007	0	0			9	9
2032	Diquat	0.02	NA	NA			NA	NA

State:	New Hampshire
Reporting Interval:	01-01-1998 to 12-31-1998

SDWIS Codes		MCL (mg/ℝ)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
2033	Endothall	0.1	NA	NA			NA	NA
2005	Endrin	0.002	0	0			9	9
2257	Epichlorohydrin				0	0		
2992	Ethylbenzene	0.7	0	0			34	30
2946	Ethylene dibromide	0.00005	0	0			9	9
2034	Glyphosate	0.7	0	0			9	9
2065	Heptachlor	0.0004	0	0			9	9
2067	Heptachlor epoxide	0.0002	0	0			9	9
2274	Hexachlorobenzene	0.001	0	0			9	9
2042	Hexachlorocyclopentadiene	0.05	0	0			9	9
2010	Lindane	0.0002	0	0			9	9
2015	Methoxychlor	0.04	0	0			9	9
2989	Monochlorobenzene	0.1	0	0			34	30
2968	o-Dichlorobenzene	0.6	0	0			34	30
2969	para-Dichlorobenzene	0.075	0	0			34	30

State:	New Hampshire
Reporting Interval:	01-01-1998 to 12-31-1998

SDWIS Codes		MCL (mg/ℝ)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
2383	Total polychlorinated biphenyls	0.0005	NA	NA			NA	NA
2326	Pentachlorophenol	0.001	0	0			9	9
2987	Tetrachloroethylene	0.005	0	0			34	30
2984	Trichloroethylene	0.005	1	1			34	30
2996	Styrene	0.1	0	0			34	30
2991	Toluene	1	0	0			34	30
2979	trans-1,2-Dichloroethylene	0.1	0	0			34	30
2955	Xylenes (total)	10	0	0			34	30
2020	Toxaphene	0.003	0	0			9	9
2036	Oxamyl (Vydate)	0.2	0	0			9	9
2040	Picloram	0.5	0	0			9	9
2037	Simazine	0.004	0	0			9	9
2976	Vinyl chloride	0.002	0	0			34	30

State:	New Hampshire
Reporting Interval:	01-01-1998 to 12-31-1998

SDWIS Codes		MCL (mg/ℝ)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
2950	Total trihalomethanes	0.10	0	0			0	0

State:	New Hampshire
Reporting Interval:	01-01-1998 to 12-31-1998

SDWIS Codes		MCL (mg/ℝ)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
	Inorganic Contaminants							
1074	Antimony	0.006	0	0			10	10
1005	Arsenic	0.05	6	3			13	12
1094	Asbestos	7 million fibers/ℝ # 10 µm long	0	0			0	0
1010	Barium	2	0	0			10	10
1075	Beryllium	0.004	0	0			10	10
1015	Cadmium	0.005	0	0			10	10
1020	Chromium	0.1	0	0			10	10
1024	Cyanide (as free cyanide)	0.2	0	0			10	10
1025	Fluoride	4.0	0	0			7	7
1035	Mercury	0.002	0	0			10	10
1040	Nitrate	10 (as Nitrogen)	0	0			61	61

State:	New Hampshire
Reporting Interval:	01-01-1998 to 12-31-1998

SDWIS Codes		MCL (mg/ℝ)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
1041	Nitrite	1 (as Nitrogen)	0	0			8	8
1045	Selenium	0.05	0	0			10	10
1085	Thallium	0.002	0	0			10	10
1038	Total nitrate and nitrite	10 (as Nitrogen)	N/A	N/A			N/A	N/A

State:	New Hampshire
Reporting Interval:	01-01-1998 to 12-31-1998

SDWIS Codes		MCL (mg/ℝ)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
	Radionuclide MCLs							
4000	**Gross alpha**	**15 pCi/ℝ**	**0**	**0**			**11**	**7**
4010	**Radium-226 and radium-228**	**5 pCi/ℝ**	**0**	**0**			**11**	**7**
4101	**Gross beta**	**4 mrem/yr**	**NA**	**NA**			**NA**	**NA**
	Subtotal		**7**	**4**			**1140**	**84**

State:	New Hampshire
Reporting Interval:	01-01-1998 to 12-31-1998

SDWIS Codes		MCL (mg/ℝ)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
	Total Coliform Rule							
21	**Acute MCL violation**	**Presence**	**19**	**18**				
22	**Non-acute MCL violation**	**Presence**	**116**	**99**				
23,25	**Major routine and follow up monitoring**						**199**	**149**
28	**Sanitary survey[2]**						**0**	**0**
	Subtotal		**135**	**111**			**199**	**149**

State:	New Hampshire
Reporting Interval:	01-01-1998 to 12-31-1998

SDWIS Codes		MCL (mg/ℝ)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
	Surface Water Treatment Rule							
	Filtered systems							
36	**Monitoring, routine/repeat**						**0**	**0**
41	**Treatment techniques**				**14**	**5**		
	Unfiltered systems							
31	**Monitoring, routine/repeat**						**1**	**1**
42	**Failure to filter**				**2**	**2**		
	Subtotal				**16**	**6**	**1**	**1**

State:	New Hampshire
Reporting Interval:	01-01-1998 to 12-31-1998

SDWIS Codes		MCL (mg/ℝ)[1]	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
	Lead and Copper Rule							
51	**Initial lead and copper tap M/R**						**2**	**2**
52	**Follow-up or routine lead and copper tap M/R**						**10**	**10**
58,62	**Treatment Installation**				**0**	**0**		
65	**Public education**				**0**	**0**		
	Subtotal				**0**	**0**	**12**	**12**

1. Values are in milligrams per liter (mg/ℝ), unless otherwise specified.

2. Number of major monitoring violations for sanitary survey under the Total Coliform Rule.

Definitions for Violations Table

The following definitions apply to the Summary of Violations table.

Filtered Systems: Water systems that have installed filtration treatment [40 CFR 141, Subpart H].

Inorganic Contaminants: Non-carbon-based compounds such as metals, nitrates, and asbestos. These contaminants are naturally-occurring in some water, but can get into water through farming, chemical manufacturing, and other human activities. EPA has established MCLs for 15 inorganic contaminants [40 CFR 141.62].

Lead and Copper Rule: This rule established national limits on lead and copper in drinking water [40 CFR 141.80-91]. Lead and copper corrosion pose various health risks when ingested at any level, and can enter drinking water from household pipes and plumbing fixtures. States report violations of the Lead and Copper Rule in the following six categories:

Initial lead and copper tap M/R: SDWIS Violation Code 51 indicates that a system did not meet initial lead and copper testing requirements, or failed to report the results of those tests to the State.

Follow-up or routine lead and copper tap M/R: SDWIS Violation Code 52 indicates that a system did not meet follow-up or routine lead and copper tap testing requirements, or failed to report the results.

Treatment installation: SDWIS Violation Codes 58 AND 62 indicate a failure to install optimal corrosion control treatment system (58) or source water treatment system (62) which would reduce lead and copper levels in water at the tap. [One number is to be reported for the sum of violations in these two categories].

Public education: SDWIS Violation Code 65 shows that a system did not provide required public education about reducing or avoiding lead intake from water.

Maximum Contaminant Level (MCL): The highest amount of a contaminant that EPA allows in drinking water. MCLs ensure that drinking water does not pose either a short-term or long-term health risk. MCLs are defined in milligrams per liter (parts per million) unless otherwise specified.

Monitoring: EPA specifies which water testing methods the water systems must use, and sets schedules for the frequency of testing. A water system that does not follow EPA's schedule or methodology is in violation [40 CFR 141].

States must report monitoring violations that are significant as determined by the EPA Administrator and in consultation with the States. For purposes of this

report, significant monitoring violations are major violations and they occur when no samples are taken or no results are reported during a compliance period. A major monitoring violation for the surface water treatment rule occurs when at least 90% of the required samples are not taken or results are not reported during the compliance period.

Organic Contaminants: Carbon-based compounds, such as industrial solvents and pesticides. These contaminants generally get into water through runoff from cropland or discharge from factories. EPA has set legal limits on 54 organic contaminants that are to be reported [40 CFR 141.61].

Radionuclides: Radioactive particles which can occur naturally in water or result from human activity. EPA has set legal limits on four types of radionuclides: radium-226, radium-228, gross alpha, and beta particle/photon radioactivity [40 CFR 141]. Violations for these contaminants are to be reported using the following three categories:

Gross alpha: SDWIS Contaminant Code 4000 for alpha radiation above MCL of 15 picocuries/liter. Gross alpha includes radium-226 but excludes radon and uranium.

Combined radium-226 and radium-228: SDWIS Contaminant Code 4010 for combined radiation from these two isotopes above MCL of 5 pCi/L.

Gross beta: SDWIS Contaminant Code 4101 for beta particle and photon radioactivity from man-made radionuclides above 4 millirem/year.

Reporting Interval: The reporting interval for violations to be included in the first PWS Annual Compliance Report, which is to be submitted to EPA by January 1, 1998, is from July 1, 1996 through June 30, 1997. This interval will change for future annual reports. See guidance language for these intervals.

SDWIS Code: Specific numeric codes from the Safe Drinking Water Information System (SDWIS) have been assigned to each violation type included in this report. The violations to be reported include exceeding contaminant MCLs, failure to comply with treatment requirements, and failure to meet monitoring and reporting requirements. Four-digit SDWIS Contaminant Codes have also been included in the chart for specific MCL contaminants.

Surface Water Treatment Rule: The Surface Water Treatment Rule establishes criteria under which water systems supplied by surface water sources, or ground water sources under the direct influence of surface water, must filter and disinfect their water [40 CFR 141, Subpart H]. Violations of the "Surface Water Treatment Rule" are to be reported for the following four categories:

Monitoring, routine/repeat (for filtered systems): SDWIS Violation Code 36 indicates a system's failure to carry out required tests, or to report the results of those tests.

Treatment techniques (for filtered systems): SDWIS Violation Code 41 shows a system's failure to properly treat its water.

Monitoring, routine/repeat (for unfiltered systems): SDWIS Violation Code 31 indicates a system's failure to carry out required water tests, or to report the results of those tests.

Failure to filter (for unfiltered systems): SDWIS Violation Code 42 shows a system's failure to properly treat its water. Data for this violation code will be supplied to the States by EPA.

Total Coliform Rule (TCR): The Total Coliform Rule establishes regulations for microbiological contaminants in drinking water. These contaminants can cause short-term health problems. If no samples are collected during the one month compliance period, a significant monitoring violation occurs. States are to report four categories of violations:

Acute MCL violation: SDWIS Violation Code 21 indicates that the system found fecal coliform or E. coli, potentially harmful bacteria, in its water, thereby violating the rule.

Non-acute MCL violation: SDWIS Violation Code 22 indicates that the system found total coliform in samples of its water at a frequency or at a level that violates the rule. For systems collecting fewer than 40 samples per month, more than one positive sample for total coliform is a violation. For systems collecting 40 or more samples per month, more than 5% of the samples positive for total coliform is a violation.

Major routine and follow-up monitoring: SDWIS Violation Codes 23 AND 25 show that a system did not perform any monitoring. [One number is to be reported for the sum of violations in these two categories.]

Sanitary Survey: SDWIS Violation Code 28 indicates a major monitoring violation if a system fails to collect 5 routine monthly samples if sanitary survey is not performed.

Treatment Techniques: A water disinfection process that EPA requires instead of an MCL for contaminants that laboratories cannot adequately measure. Failure to meet other operational and system requirements under the Surface Water Treatment and the Lead and Copper Rules have also been included in this category of violation for purposes of this report.

Unfiltered Systems: Water systems that do not need to filter their water before disinfecting it because the source is very clean [40 CFR, Subpart H].

Violation: A failure to meet any state or federal drinking water regulation.

APPENDIX B

ANNUAL PWS COMPLIANCE REPORT

MCL Violations Listing
Chemical and TCR

June 30, 1999

CHEMICAL MCL VIOLATIONS (02)

EPA ID	SYSTEM NAME	SYSTEM TYPE	POPULATION	TOWN	NH GROUP Contaminant	CONTAMINANT Code/ Name	VIO-ID/ COMPLIANCE PERIOD	AWARENESS DATE	Result
1036090	THUNDERLINE Z	NTNC	65	HAMPSTEAD	VOC	2984/Trichloroethylene	9800020 10-01-1998	10/01/1998	0.00774
004303	BROOKSIDE TERRACE	C	50	ALLENSTOWN	IOC	1005/Arsenic	9800020 01-01-1998	01/28/1998	0.055
0262020	WHITE ROCK WATER COMPANY	C	243	BOW	IOC	1005/Arsenic	9800011 07-01-1998	12/09/1998	0.056
0262020	WHITE ROCK WATER COMPANY	C	243	BOW	IOC	1005/Arsenic	9800012 10-01-1998	12/09/1998	0.056
1066020	MONADNOCK AREA COOP SCHOOL	NTNC	42	HANCOCK	IOC	1005/Arsenic	9800001 01-01-1998	1/06/1999	0.085
1066020	MONADNOCK AREA COOP SCHOOL	NTNC	42	HANCOCK	IOC	1005/Arsenic	9800002 07-01-1998	1/06/1999	0.084
1066020	MONADNOCK AREA COOP SCHOOL	NTNC	42	HANCOCK	IOC	1005/Arsenic	9900003 10-01-1998	1/06/1999	0.075

SURFACE WATER VIOLATIONS
1998 Failure to Filter (42) Violations
Treatment Technique Violations

PWS ID	SYSTEM NAME	SYSTEM TYPE	POPULATION	TOWN	COMPLIANCE ACHIEVED	STATUS
NH0101010	Ashland Water Department	C	1,500	Ashland	YES 4/01/1997	Converted to groundwater 4/1997
NH0251010	Penacook Boscawen Water Precinct	C	3,500	Boscawen	YES 2/22/1996	Converted to groundwater 2/1996
NH0861010	Freedom Water Precinct	C	163	Freedom	YES 6/29/1996	Converted to groundwater 6/1996
NH0911010	Goffstown Village Precinct	C	3,000	Goffstown	YES 6/29/1996	Plant completed 6/1996
NH1141010	Hillsborough Water Works	C	2,000	Hillsborough	YES 6/01/1996	Plant completed 6/1996
NH1291010	Lancaster Water Department	C	2,160	Lancaster	YES 6/29/1996	Plant completed 6/1996
NH1721010	New London-Springfield Water	C	2,300	New London	YES 5/01/1996	Converted to groundwater 5/1996
NH1841010	Ossipee Water Department	C	850	Ossipee	YES 6/29/1996	Converted to groundwater 6/1996
NH1911010	Pittsfield Aqueduct Co	C	1,465	Pittsfield	YES 10/29/1997	Plant completed 10/1997

NH2221010	North Stratford Water Dept	C	300	Stratford	YES 3/06/1996	Converted to groundwater 3/1996
NH2271010	Sunapee Water Works	C	1,510	Sunapee	YES 7/15/1998	Plant completed 7/1998
NH2271020	Georges Mills Water Works	C	545	Sunapee	YES 12/15/1997	Converted to groundwater 12/1997
NH2351010	Tilton-Northfield Aqueduct	C	2,275	Tilton	YES 1/05/1998	Converted to groundwater 1/1998
NH2561010	Wolfeboro Water and Sewer	C	5,500	Wolfeboro	YES 10/01/1996	Plant completed 10/1996


Environmental
Services

TOTAL COLIFORM MCL VIOLATIONS 1998

SDWIS VIO	EPA ID	SYSTEM NAME	SYSTEM TYPE	LOCATION	POP SERVED	VIO-ID COMPLIANCE PERIOD	COMPLAINCE ACHIEVED DATE	ACTIVITY STATUS
21	0162300	Attitash Woods Condo Assoc	C	Bartlett	135	9800017 1998-06-01	9900022 1999-04-16	A
	0162330	Crawford Pond	C	Bartlett	58	9800035 1998-07-01	9900054 1999-04-16	A
	0224010	Glencliff Home for the Elderly	C	Derry	230	9900007 1998-12-01 9900006 1998-10-01		A
	0991010	Greenville Water Department	C	Greenville	1100	9800005 1998-07-01 9800006 1998-08-01	9900010 1999-04-16 9900013 1999-03-15	A
	1151020	Hinsdale Water Dept/Downtown	C	Hinsdale	1375	9800014 1998-08-01	9900031 1999-04-16	A
	1652020	Chalk Pond Water Corporation	C	Newbury	158	9900003 1998-10-01	9900009 1999-04-16	A
	1932020	Golden Hill	C	Plaistow	110	9800010 1998-09-01	9900030 1999-04-16	A
	1932020	Golden Hill	C	Plaistow	110	9800011 1998-10-01	9900030 1999-04-16	A
	1992020	Hasbrouck Apartments	C	Rindge	60	9900013 1998-11-01	9900019 1999-05-24	A
	0578020	Adairs Motor Inn	N	Danbury	40	9800024 1998-04-01		A
	1117120	Paradise Point Nature Center	N	Hebron	25	9800019 1998-04-01 9800020 1998-07-01		A
	1197020	Sandy Beach Family Campground I	N	Hopkinton	163	9800006 1998-04-01		A
	1197040	Sandy Beach Family Campground II	N	Hopkinton	300	9800014 1998-04-01		A
	1227040	Camp Wanocksett/Parking Lot	N	Jaffrey	250	9800009 1998-07-01		A
	1297010	Rogers Campground	N	Lancaster	1350	9800007 1998-07-01 9800010 1998-07-01		A
	2398010	Palmer's Motel	N	Wakefield	33	9800002 1998-07-01 9800001 1998-04-01		A
	2449010	Sabbaday Falls Picnic Area	N	Waterville	500	9800001 1998-07-01		A

TOTAL COLIFORM MCL VIOLATIONS 1998								
	2459030	Fire Dept/Town Hall/Library	N	Weare	50	9800013 1998-04-01 9800015 1998-07-01	9900028 1999-04-02 9900028 1999-04-02	A
22	0043040	Bear Brook Villa	C	Allenstown	383	9800012 1998-06-01	9900025 1999-04-16	A
	0152030	Barrington Hills (Lower)	C	Barrington	38	9800011 1998-07-01	9900027 1999-04-16	A
	0202040	Westview Meadows	C	Belmont	48	9800084 1998-07-01	9900133 1999-04-16	A
	0202040	Westview Meadows	C	Belmont	48	9800085 1998-08-01	9900133 1999-04-16	A
	0203020	Ladd Hill Mobile Home Park	C	Belmont	82	9800003 1998-05-01	9900008 1999-04-16	A
	0224010	Glencliff Home for the Elderly	C	Benton	230	9900007 1998-12-01 9900006 1998-10-01		A
	0292010	Whittimore Shores	C	Bridgewater	130	9800011 1998-03-01	9900029 1998-12-15	A
	0341010	Campton Village Precinct	C	Campton	452	9800023 1998-04-01	9900032 1999-04-16	A
	0341030	Waterville Estate Vill Dist/W	C	Campton	1230	9800003 1998-02-01	9900009 1999-04-16	A
	0342090	Red Sleigh Condominiums	C	Campton	32	9800008 1998-06-01	9900020 1999-01-01	A
	0342090	Red Sleigh Condominiums	C	Campton	32	9800009 1998-07-01	9900020 1999-01-11	A
	0382010	Rosebrook Water System	C	Carroll	1303	9800033 1998-07-01	9900059 1999-04-16	A
	0394010	Immaculate Conception School	C	Center Harbor	200	9900019 1998-12-01		A
	0611010	Derry Water Department	C	Derry	15000	9800002 1998-09-01 98000001 1998-06-01	9900007 1999-03-17 9900007 1999-03-17	A
	0612050	Morningside Drive Association	C	Derry	80	9800020 1998-03-01	9900039 1999-04-16	A
	0732030	Lost Valley	C	Effingham	105	9800019 1998-01-01	9900046 1998-10-16	A
	0732030	Lost Valley	C	Effingham	105	9800022 1998-02-01	9900046 1998-10-16	A
	0753030	Lower Shaker Village	C	Enfield	180	9800012 1998-01-01	9800034 1998-07-22	A
	0781010	Errol Water Works/West	C	Errol	128	9800046 1998-02-01	9900064 1999-04-16	A

TOTAL COLIFORM MCL VIOLATIONS 1998

	0882400	Yacht Club Vista	C	Gilford	93	9800018 1998-07-01	9900035 1999-04-16	A
	0882400	Yacht Club Vista	C	Gilford	93	9900019 1998-10-01	9900035 1999-04-16	A
	0951010	Village District of Eastman	C	Grantham	2733	9800011 1998-06-01	9900026 1999-04-16	A
22	0972010	Crotched Mountain Rehab Ctr	C	Greenfield	275	9900017 1998-10-01	9900021 1999-04-16	A
	1031010	Hampstead Area Water Company	C	Hampstead	1438	9800012 1998-07-01	9900026 1999-04-16	A
	1071010	Hanover Water Works Company	C	Hanover	6712	9800033 1998-08-01	9900054 1999-04-16	A
	1101020	No Haverhill Water & Light Dis	C	Haverhill	625	9800022 1998-01-01	9900046 1999-04-16	A
	1101020	No Haverhill Water & Light Dis	C	Haverhill	625	9800023 1998-05-01	9900046 1999-04-16	A
	1101020	No Haverhill Water & Light Dis	C	Haverhill	625	9900024 1998-10-01	9900046 1999-04-16	A
	1123020	Wood Hill Village	C	Henniker	65	9900014 1998-10-01	9900027 1999-04-16	A
	1181020	Hooksett Village Water Prct	C	Hooksett	2250	9800016 1998-03-01	9800047 1999-04-16	A
	1181020	Hooksett Village Water Prct	C	Hooksett	2250	9800021 1998-09-01	9800047 1999-04-16	A
	1203010	Hudson Mobile Home Estates	C	Hudson	180	9900025 1998-11-01	9900066 1999-05-21	A
	1392300	Southview Condominiums	C	Londonderry	38	980001 1998-07-01	9900008 1999-05-21	A
	1392300	Southview Condominuims	C	Londonderry	38	990002 1998-10-01	9900008 1999-05-21	A
	1522030	Eastbluff Village Condominium	C	Meredith	48	9800010 1998-05-01	9900020 1998-12-17	A
	1522030	Eastbluff Village Condominium	C	Meredith	48	9800011 1998-06-01	9900020 1998-12-17	A
	1522070	Pine Hill Estates	C	Meredith	68	9900012 1998-10-01		A
	1522070	Pine Hill Estates	C	Meredith	68	9900013 1998-12-01		A
	1612230	Kilnwood on Kanasatka	C	Moultonborough	55	9800028 1998-07-01	9800064 1999-04-16	A
	1612230	Kilnwood on Kanasatka	C	Moultonborough	55	9800029 1998-09-01	9800064 1999-04-16	A
	1722010	Seasons at Lake Sunapee	C	New London	153	9800006 1998-06-01	9900018 1999-04-16	A

TOTAL COLIFORM MCL VIOLATIONS 1998								
	1793030	Mountain View/Northwood Park	C	Northwood	42	9800010 1998-05-01	9900022 1999-04-16	A
	1841010	Ossipee Water Department	C	Ossipee	850	9800019 1998-08-01	9900034 1999-04-16	A
	1932160	Howard Manor Condominiums	C	Plaistow	30	9800049 1998-05-01	9900101 1998-10-13	A
	1932160	Howard Manor Condominiums	C	Plaistow	30	9900050 1998-12-01		A
	19971010	Raymond Water Department	C	Raymond	3800	9900006 1998-10-01	9900009 1999-04-16	A
22	1993010	Monadnock Tenants Co-op	C	Rindge	190	9800010 1998-09-01	9900020 1999-04-16	A
	1994010	Franklin Pierce College	C	Rindge	1300	9800031 1998-05-01	9900061 1999-04-16	A
	1994010	Franklin Pierce College	C	Rindge	1300	9900032 1998-10-01	9900061 1999-04-16	A
	2232040	The Penninsula at Winding Brook	C	Stratham	128	9800007 1998-03-01	9900014 1999-04-16	A
	2232110	Turnberry	C	Stratham	38	9800002 1998-09-01	9900009 1999-04-16	A
	2232110	Turnberry	C	Stratham	38	9900003 1998-10-01	9900009 1999-04-16	A
	2232150	Aberdeen (West)	C	Stratham	46	9800004 1998-07-01	9900010 1999-04-16	A
	2301020	West Swanzey Water Company	C	Swanzey	193	9800005 1998-01-01	9900006 1999-04-16	A
	2303010	Pine Acres Mobile Home Court	C	Swanzey	300	9800013 1998-01-01	9900026 1999-04-16	A
	2373010	North Country Village	C	Tuftonboro	130	9800012 1998-08-01	9900022 1999-04-16	A
	2421010	Glencliff Improvement Co-op	C	Warren	48	9800099 1998-05-01	9900157 1999-01-04	A
	2542040	Braemer Woods Condominiums	C	Windham	60	9800008 1998-06-01	9900019 1999-04-16	A
	0027030	Rocky Gorge Scenic Area	N	Albany	500	9800001 1998-07-01		A
	0037040	AMC Cardigan Lodge	N	Alexandria	90	9800006 1998-07-01		A
	0088010	Potter Place Inn	N	Andover	25	9800003 1998-07-01	9900009 1999-04-21	A
	0147010	TL Storer/Adams/Main	N	Barnstead	250	9900008 1998-10-01		A
	0168180	Silver Spring Store/Campground	N	Bartlett	150	9800004 1998-04-01	9900012 1998-12-15	A

TOTAL COLIFORM MCL VIOLATIONS 1998

	0207070	Winnisquam Beach Campground	N	Belmont	400	9800002 1998-07-01		A
	0387070	Sugarloaf II Cpg/Sites 6-7	N	Carroll	75	9800004 1998-07-01		A
	0738020	PK Motel	N	Effingham	40	9900001 1998-10-01		A
	0778040	McDonalds Restaurant	N	Epsom	1000	9800001 1998-07-01	9900006 1999-04-16	A
	0848050	Lovetts Inn	N	Franconia	65	9900008 1998-10-01		A
	0877010	Exeter River Camping Area	N	Fremont	125	9800002 1998-04-01	9900007 1999-04-16	A
	1038010	Squire Roper's Tavern	N	Hampstead	150	9800007 1998-07-01	9900015 1999-04-16	A
22	1117120	Paradise Point Nature Center	N	Hebron	25	9800019 1998-04-01 9800020 1998-07-01		A
	1117140	Camp Berea/Gym	N	Hebron	100	9800009 1998-01-01	9900024 1999-04-16	A
	1206040	Nottingham Plaza	N	Hudson	25	9800010 1998-07-01	9900020 1999-04-16	A
	1279040	Kingston Town Hall	N	Kingston	60	9800008 1998-07-01	9900018 1999-05-07	A
	1288120	The Broken Antler	N	Laconia	100	9800020 1998-07-01		A
	1297010	Rogers Campground	N	Lancaster	1350	9800007 1998-07-01 9800010 1998-07-01		A
	1338070	RTE 4 Fuel Stop	N	Lee	200	9900032 1998-10-01	9900059 1999-04-16	A
	1567020	Hampshire Hills Sports/Fitness	N	Milford	35	9800001 1998-01-01		A
	1577010	Log Haven Campground	N	Millsfield	200	9800010 1998-04-01	9900025 1999-05-21	A
	1799020	Northwood Town Hall	N	Northwood	30	9900003 1998-10-01		A
	1877020	Miller State Park	N	Peterborough	25	9800005 1998-07-01		A
	1908090	Spruce Cone Cabins/Campground	N	Pittsburg	125	9900006 1998-10-01		A
	1927010	Singing Hills Main Lodge	N	Plainfield	250	9800008 1998-07-01	9900020 1999-05-20	A
	1938040	Eggies Diner	N	Plaistow	75	9800010 1998-07-01	9900023 1999-04-16	A

TOTAL COLIFORM MCL VIOLATIONS 1998

	1947030	Plymouth Sands Camping Area	N	Plymouth	125	9800003 1998-04-01		A
	1987010	Shir Roy Camping Area	N	Richmond	200	9800004 1998-04-01		A
	1998020	Cyprus Grove Restaurant	N	Rindge	75	9900010 1998-10-01		A
	2107010	AMC Lakes of the Clouds Hut	N	Sargents Purchase	98	9800001 1998-07-01		A
	2177010	Sunapee Arts Camp	N	Springfield	80	9800008 1998-07-01		A
	2187020	South Pond Recreation Area	N	Stark	25	9800002 1998-04-01		A
	2117020	Camp Foss	N	Strafford	150	9800005 1998-07-01		A
	2278020	The Inn at Sunapee	N	Sunapee	50	9800003 1998-07-01		A
	2347020	Goose Hollow Travel Trailer Pk	N	Thornton	438	9800001 1998-07-01		A
22	2398010	Palmer's Motel	N	Wakefield	33	9800002 1998-07-01 9800001 1998-04-01		A
	2458010	Lakeshore Village Resort	N	Weare	75	9800005 1998-04-01	9900013 1999-04-16	A
	2459030	Fire Dept/Town Hall/Library	N	Weare	50	9800013 1998-04-01 9800015 1998-07-01	9900028 1999-04-02 9900028 1999-04-02	A
	2477010	Camp Pemigewassett	N	Wentworth	235	9800008 1988-07-01		A
	2566020	495 Center Street	N	Wolfeboro	25	9900010 1998-10-01		A
	0076040	Salzburg Square	N	Amherst	25	9800017 1998-01-01	9900031 1999-04-16	A
	0195020	Kellogg Elementary School	P	Bedford	70	9800010 1998-07-01	9900036 1999-04-30	A
	0195020	Kellogg Elementary School	P	Bedford	70	9900012 1998-10-01	9900036 1999-04-30	A
	0195080	Liberty School House	P	Bedford	44	9900004 1998-10-01	9900011 1999-04-26	A
	0199030	Bedford Presbyterian Church	P	Bedford	50	9800012 1998-07-01		A
	0266130	Ruggles III Office Building	P	Bow	35	9800015 1998-01-01		A
	0266130	Ruggles III Office Building	P	Bow	35	9800019 1998-04-01		A

TOTAL COLIFORM MCL VIOLATIONS 1998								
	0266130	Ruggles III Office Building	P	Bow	35	9900021 1998-10-01		A
	0895010	Gilmanton Elementary School	P	Gilmanton	326	9900004 1998-10-01	9900012 1999-04-16	A
	0915020	Family Country Day Care Inc	P	Goffstown	100	9800001 1998-07-01		A
	1885010	Piermont Village School	P	Piermont	107	9800004 1998-07-01	9900013 1999-05-20	A
	1915010	Bear Hill School Lockes Location	P	Pittsfield	45	9800047 1998-04-01	9900060 1999-05-05	A
	1936100	Pentucket Shopping Center	P	Plaistow	300	9800011 1998-04-01	9900016 1999-04-16	A
	1975010	Raymond High School	P	Raymond	671	9900006 1998-10-01		A
	1995020	The Meeting School	P	Rindge	50	9800016 1998-01-01	9900048 1999-04-16	A
	2455020	Weare Middle School	P	Weare	470	9800003 1998-07-01		A

APPENDIX C

ANNUAL PWS COMPLIANCE REPORT

SWTR and Lead and Copper Violations

June 30, 1999

LEAD AND COPPER MCL VIOLATIONS 1998

SDWIS VIO	EPA ID	SYSTEM NAME	SYSTEM TYPE	LOCATION	POP SERVED	VIO- ID COMPLIANCE PERIOD	COMPLIANCE ACHIEVED DATE	ACTIVITY STATUS
51	1932020	Golden Hill	C	Plaistow	110	9300003 1994-05-25		A
	0196090	WangBuilding	P	Bedford	41	9500007 1996-08-27	9800013 1997-11-18	A
52	0055030	The Orchard School	P	Alstead	50	9800004 1998-01-01	9900008 1999-02-17	A
	0081010	Andover Village District	C	Andover	650	9800014 1998-07-01	9900026 1999-02-19	A
	0171010	Bath Village Water Works	C	Bath	83	9800048 1998-01-01	9900073 1999-02-17	A
	0519020	Conway Town Hall	P	Conway	52	9800003 1998-01-01	9900006 1999-02-24	A
	1205060	Kiddie Konnection	P	Hudson	125	9800002 1998-01-01	9900005 1999-02-24	A
	1842030	Indian Mound Golf Club	C	Ossipee	193	9800049 1998-01-01	9900081 1998-12-18	A
	1932190	Chandler Terrace	C	Plaistow	30	9800019 1998-01-01	9900050 1999-03-03	A
	1972050	Pawtuckaway Farms	C	Raymond	38	9800010 1998-07-01	9900022 1999-02-26	A
	2032010	Hawthorne Village Assoc	C	Rumney	52	9800033 1998-01-01	9900061 1999-03-11	A
	2452010	Daniels Lake Development	C	Weare	35	9800019 1998-07-01		A